

XIII. *Observations on the Dermaptera, including revisions of several Genera, and descriptions of New Genera and Species.* By MALCOLM BURR, B.A., F.L.S., F.Z.S., F.E.S.

[Read February 3rd, 1904.]

THE examination of the fine collection of *Dermaptera* in the National Museum of Paris has involved the description of a large number of new species and some new genera; I have taken the opportunity of revising a few genera that were in need of revision, and of describing a number of new forms in my own and other collections.

I acknowledge my indebtedness to Sir George Hampson and to Mr. W. F. Kirby for their permission to avail myself of the material in the British Museum, and to describe a few species from that collection.

REVISION OF THE GENUS *DIPLATYS*, SERV.

The examination of a number of specimens of this genus has shown me clearly that several species have hitherto been confounded together, and that the old characters are useless. I have accordingly made a study of the entire genus and drawn up the following synoptical table of the species, based almost entirely on new characters. For the discrimination of the species of *Diplatys* especially, it must be borne in mind that details of colour are worse than useless, and more often misleading than helpful, though the general system of coloration is valuable, if employed with care.

Doubtless when a larger collection is brought together, this revision will be superseded, though I have been able to examine the types of nearly all the species, but as the characters which I have adopted, namely, the form of the occiput and of the pronotum, group the species according to their geographical distribution, I hope that the new arrangement will be an improvement upon the old.

TABLE OF THE SPECIES.

1. Occiput margine postico carinato-reflexo; (suturis indistinctis; segmentum ultimum tumidum; pronotum postice rotundatum et quam antice angustius, haud longius quam latius; corpus pubescens; species americanæ).
 2. Colore atro 1. *severa*, Borm.
 - 2.2. Colore rufo, nigro-variegato 2. *jansoni*, Kirby.
- 1.1. Occiput margine postico haud reflexo.
 2. Occiput convexum, nec depressum, nec deplanatum, medio nec carinatum nec sulcatum 3. *æthiops*, sp. n.
 - 2.2. Occiput postice plus minus depressum vel deplanatum, carinulatum vel sulcatum.
3. Pronotum longius quam latius.
 4. Species americana; frons supra labrum tri-impressa; (suturis carinisque distinctis; pronotum antice et postice æque latum) 4. *occidentalis*, sp. n.
 - 4.4. Species africanæ et asiaticæ; frons haud tri-impressa.
5. Occiput inter oculos late et valde elevatum; parte depressa angusta, transversa, media sulcata 5. *conradi*, sp. n.
- 5.5. Occiput inter oculos haud vel vix elevatum; parte postica depressa magna.
6. Occiput margine postico bicarinulatum 6. *viator*, sp. n.
- 6.6. Occiput margine postico sulcatum.
7. Statura robustiori; minus pubescens; pronotum lateribus parallelis, ovale; forcipis brachia basi valida et dilatata et deplanata,

- tum attenuata, sensim incurva 7. *macrocephala*, Beauv
- 7.7. Statura graciliori ; valde pubescens ; pronotum lateribus rectis, postice convergentibus, postice quam antice angustius ; forcipis brachia recta, subcontigua, basi haud valde dilatata, sensim attenuata et acuminata . . . 8. *raffrayi*, Borm.
- 3.3. Pronotum latius quam longius vel æque latum ac longum.
4. Pronotum lateribus parallelis, antice et postice æque latum.
5. Color ruber, rufus vel rufo-testaceus.
6. Statura minore (9.5-10 mm.) 9. *gerstæckeri*, Dohrn. (= *longisetosa*, Westw.)
- 6.6. Statura majore (12mm. ♀) 9a. id. var. *calidasa*.
- 5.5. Color fuscus, vel rufo-fuscus (Statura majore).
6. Abdomen segmento ultimo angulis exterioribus rectangularibus ; forceps intus denticulatus 10. *rufescens*, Kirby.
- 6.6. Abdomen segmento ultimo angulis exterioribus rotundatis ; forceps intus inermis . . . 11. *siva*, sp. n.
- 4.4. Pronotum antice quam postice latius.
5. Color niger, rufo-variegatus . 12. *ridleyi*, Kirby.
- 5.5. Color fuscus, necnon albo-variegatus.
6. Pronotum lateribus rectis, postice convergentibus ; forceps sensim attenuatus. (Color fuscus, albo-variegatus) 13. *nigriceps*, Kirby.
- 6.6. Pronotum lateribus convexis ; forceps basi validus, tum attenuatus.

7. Pronotum sutura distincta; elytra nitentia; albo-variegatus . . . 14. *croixi*, sp. n.
 7.7. Pronotum sutura nulla; elytra haud nitentia; color fuscus . . . 15. *greeni*, sp. n.

Diplatys severa, Borm., and *D. jansoni*, Kirb.

This group is easy to distinguish by the form of the occiput; the two species are very different in appearance, *D. severa* being of a general dull-black colour, whereas *D. jansoni* is blue-black, with brick-red feet and forceps and pronotum, and sometimes the elytra also are varied with red.

Diplatys aethiops, sp. n.

Parva, gracilis, atra, nitida; occiput valde convexum, globosum, læve, suturis carinisque haud vel vix perspicuis; pronotum antice et postice æque latum, sed margine antico medio in collem triangularem productum; corpus vix pubescens; pedes nigri, tarsis pallidioribus; abdomen gracile, segmento ultimo tumido; forcipis braccia deplanata, recta, conica, inermia, ♂.

Long. corporis . . . 6·5 mm. ♂.
 „ forcipis . . . 0·9 „

Hab. ? (1 ♂ in my collection.)

This species is chiefly characterized by the form of the head.

Diplatys occidentalis, sp. n.

Statura minore; colore rufo-testaceo; antennæ (? +) 8 segmentatæ, segmento 1 nigro, 2 nigro, minimo, 3 and 4 rotundatus, testaceis, 5 longiori, fusco, 6-8 elongatis, cylindricis, fuscis. Caput fuscum, medio rufo-maculatum, postice rufo-marginatum; occiput postice depressum; caput postice angustatum; oculi nigri; pronotum ovale, longius quam latius; frons supra labrum triimpressa; pronotum ovale, fulvo-testaceum; scutellum fulvum; elytra rufo-fulva, macula magna basali fusca, vittaque fusca exteriori, ornata; alæ fulvæ, externe fusco vitatæ. Pedes pallido-testacei, femoribus apice infuscatis. Abdomen rufum, lateribus infuscatis; segmentum ultimum magnum, haud valde tumidum, fuscum, medio sulcatum, margine postico medio deplanato; forceps simplex, rectus, conicus, paullo deplanatus. ♀.

Long. corporis . . . 7 mm. ♂.*
 „ forcipis . . . —

Hab. WEST INDIES, Granada, Balthasar, 250 feet, 20 v. 95, No. 206, "Came to light." (1 ♀ in B. M.)

The coloration and habitat distinguish this species; it does not agree in form with the South American species *D. jansonii* and *D. severa*, but in appearance more nearly resembles *D. gerstaeckeri*.

Diplatys conradti, sp. n.

Caput nigrum; occiput inter oculos valde elevatum, latum, tumidum; parte depressa postica angusta, transversa; antennæ rufæ; pronotum rufum, ovatum, lateribus rotundatis, antice et postice æque latum, sublongius quam latius; elytra et alæ ampla, fusco-violacea; pedes rufo-testacei; abdomen fusco-violaceum, pilis longis obsitum; segmentum ultimum abdominis paullo tumidum, ceteris vix latius; forcipis brachia rufa, conica, recta, inermia. ♂.

Long. corporis . . . 9.5 mm. ♂.
 „ forcipis . . . 0.6 „

Hab. NORTH CAMEROONS, Joh.-Albrechtshöhe. (1 ♂, Mus. Paris.)

This species is undoubtedly confused in collections with *D. raffrayi* and perhaps with *D. macrocephala*. The form of the occiput distinguishes it from both.

Diplatys viator, sp. n.

Gracilis, niger, vel fusco-violaceus; occiput inter oculos elevatum, et globosum, postice deplanatum et bicarinulatum; pronotum antice quam postice latius, lateribus rectis, convergentibus. Elytra et alæ violaceo-nigra. Abdomen gracile; forcipis brachia gracilia, recta. ♀.

Long. corporis . . . 12 mm. ♀.
 „ forcipis . . . 1.2 „

Hab. MADAGASCAR, Ankazoabo, 1 ♀ (*E. Bastard*, 1902, Mus. Paris); FERNANDO PO (*L. Conradt*, 1901, Mus. Paris).

The specimen from Fernando Po, which appears to be a male, is broken, and the apex of the abdomen and the forceps are missing, which is unfortunate, as the remainder of the insect is in better condition than the female from Madagascar; I am convinced, however, that the two specimens are one and the same species; they are likely to be confused with *D. raffrayi*, but differ in the form of the occiput.

* The body of the type is unfortunately broken, and so the exact measurement cannot be taken.

Diplatys macrocephala, Pal. Beauv., and *D. raffrayi*, Borm.

These two species are invariably confused in collections, and I doubt whether de Bormans himself accurately appreciated the difference between them; at all events, in his monograph in Tierreich he attempted to discriminate between them by their colours alone, an entirely deceptive method, that is bound to make confusion worse confounded. The colouring of the two species is the same and varies in the same manner. The difficulty is complicated by the apparent dimorphism of the males. The typical male of both species has the last abdominal segment large and tumid, and the forceps stout, strongly flattened, and dilated near the base, and then suddenly attenuated, and incurved; in a male in my collection (ex. coll. de Bormans) from Stanley Pool, Congo, the forceps recall those of typical *Forficula*; the other, and perhaps commoner form, resembles the female, and these are to be mistaken for hermaphrodites. In the synoptical table I have endeavoured to set forth the distinctions as they appear to me.

Diplatys gerstaeckeri, Dohrn.

Much doubt has existed as to the relations between *Nannopygia gerstaeckeri* and *Diplatys longisetosa*; de Bormans actually retained Dohrn's genus, but it coincides without any doubt with Serville's earlier erection.

At the time of Mr. Green's paper on *D. longisetosa* (Tr. Ent. Soc., 1898, p. 381) I was unfamiliar with Dohrn's species, and so described Mr. Green's insect under Westwood's name (l. c., p. 388), but in a later paper (The Earwigs of Ceylon, Journ. Bombay N. H. Soc., 1901, November, p. 75) I have united the two species. I will again quote a letter from Dr. Kuhlitz of the Berlin Museum, who kindly examined Dohrn's type for me: "*D. longisetosa* is very closely allied to this species (i. e. *N. gerstaeckeri*), but not actually identical with it. *Nannopygia gerstaeckeri* is entirely bronze-coloured with black eyes; in *Diplatys longisetosa* the head is black; the forceps increase a little more in thickness from the apex to the base than in *Nannopygia gerstaeckeri*; the elytra of the latter are uniform in colour and broader than in *D. longisetosa*, in which the two posterior thirds of the elytra have a long blackish shadowy streak (at least in the two specimens in the

Berlin Museum). Both forms belong to one and the same genus. In structure they scarcely differ at all."

In spite of this de Bormans attempted to keep the two genera distinct. But an examination of a number of specimens shows that the two species run into each other. Dr. Kulilgatz describes the head as black in *D. longisetosa*, but it is not so in many specimens, as for instance the one figured by Mr. Green (*op. cit.* Pl. xviii, fig. 5).

Hitherto this species has only been recorded from Ceylon and Burmah, but in the Paris collection I find two females from Dardjiling which are so much larger and stouter in build that I first regarded them as a distinct species. But as I can find no structural distinction, I am compelled to regard them as a local race or variety of *D. gerstaeckeri* for which I propose the name var., *calidasa*. Their dimensions are

Long. corporis . . .	12-12.25 mm.	♀.
„ forcipis . . .	1-1.25	„

Diplatys rufescens, Kirb.

In spite of its name, this species falls nearer to the fuscous species than to the red *D. gerstaeckeri*. It is most closely allied to *D. siva* n., but differs as noted in the table of species.

Diplatys siva, sp. n.

Statura majore; colore fusco. Caput fuscum vel fusco-rufum, planum, postice subangustatum, suturis obsoletis; oculi prominuli, nigri; antennae 15-segmentatae, 1 valido, lato, 2 minimo, 3 and 4 quam 2 duplo longioribus, 5 and 6 etiam longioribus, ceteris gracilibus, cylindricis, elongatis; pronotum capite paullo angustius, fusco-brunneum, necnon costis lateralibus deplanatis pallidioribus, prozona elevata, medio sulculo longitudinali impressa; metazona deplanata, postice rotundata, paullo supra elytra producta; scutellum minimum: elytra valde explicata, ampla, lata, tota fusco-brunnea; alae valde explicatae, squamis fusco-brunneis. Pedes graciles, longi, fusco, compressi; segmentum primum tarsorum ceteris unitis longius. Abdomen gracile, elongatum, fusco-rufum, tuberculis lateralibus distinctis; segmentum ultimum ♂ vix vel haud deplanatum nec tumidum, globosum, haud attenuatum; abdomen ♀ breve, alarum apices vix superans, apice attenuatum. Forcipes brachia; ♂ pallida, recta, inermia, subcontigua, vix deplanata, apicibus ipsis incurvis; ♀ fortiora, subdepressa, breviora, contigua, conica, fusciora. Corpus sparsim pallide pubescens. ♂ ♀.

	♂	♀
Long. corporis . . .	15·3 mm.	10-11·6 mm.
„ forcipis . . .	2 „	1 „

Hab. INDIA, Dardjiling (*Harmand*, 2854-90, Mus. Paris, 2 ♂, 3 ♀).

This new species resembles *D. greeni* in appearance, but is larger. Its position is shown in the synoptical table of species; it approaches *D. rufescens*, Kirb., in structure. Its chief distinction from the latter is the shape of the last abdominal segment of the male, in which the exterior apical angles are rounded, whereas in *D. rufescens* they are rectangular. The forceps is entirely without internal denticulation.

Diplatys ridleyi, Kirby.

This is a red and fuscous species that may be confused with *D. raffrayi*, which it replaces in Asia. In addition to the characters attributed to it in the table, the median and transverse sutures of the head are distinct; the space behind the eyes is elevated and keeled. The occiput is not excavated posteriorly, but only slightly sulcated; the legs are normally ringed with black, but I possess a specimen from Mentawai in which the feet are entirely testaceous.

Diplatys nigriceps, Kirby.

This is the white-marked species described by Mr. Kirby from Hong Kong; it is distinct from the Cingalese species described by me under this name (*Tr. Ent. Soc.*, 1898, pl. 389), which requires a new name (v. *greeni*, n. post.).

Diplatys eroixi, sp. n.

Statura minore; colore fusco; corpus pilis longis obsitum; occiput convexum, carinis sulculisque vix perspicuis; pronotum æque longum ac latum, antice quam postice paullo latius, lateribus convexis, margine postico toto rotundato. Caput et segmentum primum antenarum nigra; antennæ fusco-testaceæ. Pronotum prozona elevata fusca, metazona depressa albida. Elytra et alæ amplæ, nitentia; scutellum pallidum. Pedes testacei, femoribus tibiisque nigro-annulatis. Abdomen æneo-nitens; forceps conicus, simplex, rufofuscus. ♀.

Long. corporis . . .	9 mm.	♀.
„ forcipis . . .	1 „	

Hab. MALACCA PENINSULA, 2 ♀♀ (*Errington de la Croix* et *P. Chapé*, 1899, in Mus. Paris).

This species approaches *D. nigriceps* in colour, but it is nearer to *D. greeni* in structure; it may be easily confused with the former.

Diplatys greeni, sp. n.

Color fuscus, elytris alisque fusco-rufescentibus. Pronotum latius quam longius, antice quam postice latius, lateribus convexis. Abdomen fusco-rufum; segmentum ultimum dorsale nigrum, magnum, quadratum, angulis exterioribus apicalibus angulatis, haud rotundatis; forcipis brachia ♂ basi vix contigua, valida, ad mediam partem longitudinis subito attenuata, incurva, ♂. ♀ simpla, recta, conica. ♂ ♀.

♂ ♀.

Long. corporis . . . 8·5-10 mm.

„ forcipis . . . 1-1·9 „

Hab. CEYLON, Punduluoya (*Green*; in B. M. and in my coll.).

Diplatys nigriceps. Burr (nec Kirby nec Bormans). Tr. Ent. Soc. London, 1898, p. 389, Pl. xviii, figs. 1-3, Pl. xix, figs. 6-8 and 15. Burr, Journ. Bombay N. H. Soc., 1901, p. 75, Pl. A, figs. 1-3.

This is the species whose post-embryonic development was investigated by Mr. Green, together with that of *D. gerstaeckeri*. It is undoubtedly distinct from the *D. nigriceps* of Kirby, from Hong Kong, with which it is confused in collections.

CHALLIA, nov. gen.

Corpus apterum; antennæ graciles, segmento 1 magno, longo, 2 brevi, haud longiori quam latiori, 3 longiori, 4 and 5 subbrevioribus, ceteris sensim elongatis (segmenta 16 restant); caput deplanatum; occiput postice medio sulcatum et utrinque bicarinatum; pronotum quam caput æque latum, subquadratum; mesonotum pronoto latius, humeris carinato-deflexis; metanotum breve, latum, transversum; pedes longi, graciles, femoribus carinulatis, plus minus compressis; abdomen pubescens, ♂ medio constrictum, ♀ cylindricum, segmentis omnibus punctulatis; segmentum ultimum dorsale magnum punctulatum, medio, apud ♂ profunde, apud ♀ minus, sulcatum, margine postico tuberculis 5 globosis, quorum 3 minora, 2 majora, instructo; forcipis brachia basi

subcontigua; ♂ sat valida, depressa, ante medium carina interna in dentem obtusum sursum spectantem elevata; dehinc magis depressa, subsinuata, aream angustam ellipticam includentia, ante apicem iterum parallela, margine interno denticulata, apice ipso valde incurva, decussata: ♀ recta, parallela, cylindrica, gracilia, prope basin margine interno minute crenulata, paullo ante apicem denticulatis, nonnullis acutis armata, apice ipso tantum incurva, decussata.

This remarkable genus is very closely allied to, and perhaps even identical with, *Anataëlia*, Bolivar, from the Canaries, which, until now, has been regarded as an isolated aberrant form. But for some years I have had a solitary female in my collection from Korea, which I was unable to describe without the male. It approaches *Pygidicrana* somewhat superficially, but the form of the antennæ and thoracic plates distinguishes it at once from the *Pygidicranidæ*, as well as from the *Karschiellidæ* of Verhoeff.

Challia fletcheri, sp. n.

Fusco-rufescens; pedes testacei, fusco-lineati; dorsum testaceum, fusco-variegatum, vel totum-fuscum; forcipis brachia basi testacea, tum fusca. ♂ ♀.

	♂	♀
Long. corporis . . .	15 mm.	14.51-16 mm.
„ forcipis . . .	5 „	4.5-5 „

Hab. CHINA, Wei-hai-wei, Len-kung-tan, ix, '98, 1 ♀ (*T. B. Fletcher*, in my coll.); Da-laen-suen, 1 ♂ (*J. J. Walker*, 93-52, B. M.); Tung-yun, 1 ♀ (*J. J. Walker*, 93-52, B. M.); Tamaon Id (*J. J. Walker*, 2 ♀ ♀, 92-196). (The first two also bear the numbers 100344 and 10344 respectively, and the last two bear the numbers 7519.)

NOTE ON THE GENUS *BORMANSIA*, VERHOEFF.

This remarkable genus was erected and characterized by Verhoeff (*Über Dermapteren*, Zool. Anzeig. Nr., 665, 1902), and has hitherto remained only known by this description. But I found a fragmentary male in the Paris collection, and six fragments from Kilimandjaro, from which I have been able to piece together two or three fairly complete specimens, of *B. impressicollis*, so that I can describe the male, as Verhoeff only knew the female. The two species (*B. africana* is the other) are closely allied, it

appears, but *B. africana* is much more hairy than *B. impressicollis*.

The male of *B. impressicollis* has the last abdominal segment very large and round, and smooth, armed at each corner of the posterior margin with a kind of long and blunt tongue-shaped tooth; the forceps are very stout and powerful, the branches strongly thickened and dilated at the base; the inner margin is strongly denticulated, and the left branch is incurved more strongly than the right, as in *Anisolabis maritima*; each branch is armed, near the base, on the upper margin, with a strong, sharp, vertical tooth. The antennæ are characteristic of Verhoeff's family *Karschiellidæ*, to which this genus is assigned; in *B. impressicollis* the first segment is very large and dilated, the second very small, the third a little shorter than the first; the nine following segments are dark, very small, globose; there appear to be at least twenty-five segments, of which the last nine or ten are more slender and conical; the basal half of the antennæ are noticeably thick and strong. In the British Museum there is a single male of a third species, from the Transvaal, which will be described elsewhere.

It is to be noted that according to Verhoeff, the nymphs of *Bormansia africana* have segmented cerci, as in *Diplatys*; the cerci have fifteen or sixteen segments, of which the basal one forms the forceps of the imago.

TOMOPYGIA, nov. gen.

Antennæ segmentis 23 vel plus instructæ; elytra perfecte explicata; alæ deficientes; scutellum triangulare vel vix perspicuum; pedes longi, graciles, femoribus haud incrassatis, quam tibiæ longioribus; segmentum ultimum abdominale magnum, latum, quadratum; pygidium semilunare, verticale; forcipis brachia ♂ sat valida, basi remota, incurva, paullo ante apicem attingentia, recta, contigua, intus dentata, apice decussata.

Typus generis: *Cylindrogaster abnormis*, Borm.

This genus was originally erected in manuscript by my friend M. de Bormans, for the remarkable earwig described by him in 1883 as a very distinct form of *Cylindrogaster*; in his monograph (Tierreich, Forf., p. 23, 1900) he ranges it in *Pygidierana*. The collection of the Paris Museum contains a fragment, only the anterior half of the body, but this is so characteristic that I hardly hesitate to

describe it as new, and range it here, though the form of the abdomen and forceps is not known.

TABLE OF SPECIES.

1. *Innitidus* ; scutellum magnum, pronotum æquans ; elytra brevia, nigro-brunnea ; femora anulata 1. *abnormis*, Borm.
 1.1. *Nitidus* ; scutellum haud perspicuum ; elytra longiora, æneo-nitentia ; femora unicoloria 2. *sinensis*, sp. n.

Tomopygia sinensis, sp. n.

Rufo-brunnea ; caput pallidum, tumidum, oculis fulvis ; antennæ segmento 1 magno, conico, obtuso, 2 minimo, 3 longiori. 4, 5, 6 minimis, ceteris sensim longioribus ; (segmenta 22 restant). Pronotum quadratum, quam caput æque latum, antice rectangulum, postice rotundatum, lateribus parallelis ; prozona elevata, metazona depressa ; lateribus paullo reflexis, pellucidis, rufo-brunneum, linea impressa pallidiori ornatum. Scutellum haud vel vix distinguendum. Elytra ampla, longiora quam latiora, minutissime punctulata, rufo-brunnea, æneo-nitentia, margine apicali rotundata, ab humeris apicem versus carina elevata instructa ; alæ desunt. Pedes unicolores, flavi, longes, graciles, femoribus haud incrassatis, quam tibiæ longioribus, vix crassioribus ; tarsorum segmentum primum ceteris unitis longius, subtus valde pubescens ; ungues pulvillo nullo. Abdominis cylindricum, rufo-brunneum, tuberculis lateralibus nullis ; segmenta 7 prima minutissime. margine postico fortius, punctulatis. Segmentum ultimum . . . ? Forceps . . . ? Sexus . . . ♂ ?

Long. corporis 2 mm.
 „ elytrorum 3 „
 „ fem. post. . . . 4 „

Hab. CHINA, Pekin, mountains (*A. David*, 941-72, Mus. Paris).

Although the apex of the abdomen, together with the forceps, is missing, I do not hesitate to describe this as a new species. It is very distinct from *T. abnormis* (Java), the only other known species of the genus.

TABLE OF SPECIES OF *FORCIPULA*, BOLIVAR.

1. Forceps intus inermis. 1. *walkeri*, Kirby.
 1.1. Forceps intus dentatus.
 2. Abdominis segmenta 3 basalia lateribus crista spinulosa ornata 2. *americana*, Borm.

- 2.2. Abdominis segmenta nonnulla spinosa, haud cristata.
3. Segmenta 2-5 abdominis utrinque spinis binis armata 3. *decolyi*, Boru.
- 3.3. Segmenta nonnulla abdominis lateribus utrinque spinis singulis armata.
4. Forceps ♂ sensim incurva, haud constrictus.
5. Segmentum 6 inerme ; species africanæ.
6. Segmenta 2-4 spinosa. Forcipes brachia bidentata 4. *congo*, Burr.
- 6.6. Segmenta 2-5 spinosa. Forcipes brachia unidentata. 5. *gariazzi*, Borelli.
- 5.5. Segmenta 2-6 spinosa ; species americana 6. *quelchi*, sp. n.
- 4.4. Forceps primum parallelus, deinde constrictus.
5. Segmenta 2-4 spinosa.
6. Elytra alæque rugulosa. 7. *tarsata*, Westwood.
- 6.6. Elytra alæque lævia 8. *trispinosa*, Dohrn.
- 5.5. Segmenta 2-5 spinosa.
6. Pedes unicolores 9. *pugnax*, Kirby.
- 6.6. Pedes testacei, et infuscati 10. *quadrispinosa*, Dohrn.

Forcipula quelchi, sp. n.

Statura majore ; nigra ; pronotum quadratum ; elytra et alæ rugulosa ; abdomen segmentis 4, 5, 6 spinis parvis obtusis rectis armatis ; segmentum ultimum dorsale lævius, medio impressum ; forcipis brachia triquetra, valde elongata, sensim incurva, haud constricta, margine interno medio dente forti acuto armata. ♂.

♂

Long. corporis 23·7 mm.
 , forcipis 18·8 „

Hab. BRITISH GUIANA (1 ♂, *Quelch*, 89-127, in B. M.).

This is the second known American species of the genus ; it differs entirely from *F. americana* in the colour of the elytra and in having spines, but not a spined crest, on the sides of the basal abdominal segments. It more nearly approaches *F. quadrispinosa*, Dohrn, but differs in the not constricted forceps, the smaller abdominal spines, and in its habitat.

Labidurodes nitidus, sp. n.

Ater, nitidus, lævis; caput convexum; antennæ segmentis 14; segmentis 8-11 et 14 nigris, ceteris pallidis, 2 minimo, 3 longo, 4 and 5 brevia, rotundata, ceteris elongatis. Pronotum quadratum, antice quam postice paullo angustius, margine antico subrotundato. Elytra ampla, apice truncata; alæ prominentes; pedes breves; femora valde incrassata; tibiæ apice pallidæ; tarsi pallidi, segmento primo cetera 2 unita longitudine æquanti, 2º minimo, haud lobato. Abdomen cylindricum, segmento tertio tuberculo laterali magno instructo; segmentum ultimum angustum, declivum. Pygidium haud perspicuum. Forcipis brachia paullo remota, recta, triquetra, valida, conica, apicem versus sensim attenuata atque incurva, apice decussata, inermia. ♀

Long. corporis . . . 19·2 mm.
 „ forcipis . . . 1·5 „

Hab. MADAGASCAR, “Région du sud-est, Vallée d'Ambolo, Forêt de Fitana.” (*Ch. Alluaud*, 1901, 1 ♀, Mus. Paris.)

This specimen appears to be a true *Labidurodes*, but has fewer segments in the antennæ than the typical species; otherwise it agrees with the generic characters. It is very considerably smaller than the only other known species, *L. robustus*, Borm., from New Guinea.

Carcinophora waddyi, sp. n.

Parva, fusca; caput convexum, atrum, nitidum; antennæ 13 segmentis, typicæ, fuscæ, segmentis 1-3 pallidis; pronotum quadratum, nigrum, lateribus pallidis; elytra perfecta, pronoto longiora, fusco-testacea; alæ deficientes; pedes pallidi, femoribus tibiisque fusco-annulatis; abdomen fusco-testaceum, tuberculis lateralibus haud perspicuis; segmentum ultimum dorsale angustatum, margine postico medio impresso; forcipis brachia contigua, conica, sat gracilia, sensim incurva, attenuata, apice decussata rufo-testacea. ♀.

Long. corporis . . . 7·4 mm.
 „ forcipis . . . 1·3 „

Hab. MARTINIQUE (1 ♀, *Waddy*, No. 14, Mus. Paris).

Differs from *C. robusta*, Scudd., by its much smaller size and slenderer build; from *C. boliviana*, Borm., by the elytra, which are half as long again as the pronotum.

Anisolabis gaudens, sp. n.

♂. *A. læta*, Gerst., vicina; statura minori, robusta; atra, nitida, glabra: caput rufum, clypeo oculisque nigris; occiput margine postico macula indistincta fusca ornatum; antennarum segmenta 15 restant, 1 longo, rufo, 2 minimo, 3 longo, rufescenti, 4 and 5 longioribus, nigris, ceteris elongatis, nigris. Pronotum oblongo-quadratum, sulculo medio per meso- et metanota producto instructum; pro-, meso- et metanota atro-nitentia; elytrorum vestigia nulla; pedes breves, robusti, rufi, femoribus apice tibiisque basi læte nigro-annulati; tarsis ferrugineis, subtus pilosis: abdomen venterque tota atro-nitentia, minutissime vel vix punctulata; venter subtus pallido-pilosus; segmentum ultimum dorsale magnum, latum, læve, haud sulcatum; forcipis brachia robusta, conica, subrecta, inermia, subcontigua, triquetria, rufo-nigra. ♀ ignota.

	♂
Long. corporis . . .	17 mm.
„ forcipis . . .	3 „

Hab. INDIA, Bhoutan, Pedong, 1 ♂ (*R. Oberthur*, 1897; Mus. Paris).

This species approaches *A. læta*, Gerst., and *A. dubronyi*, Kirb. The antennæ are unicolorous, the forceps simple, the head red, but it differs in the darker colour, stouter build, shorter feet, which are broadly banded with dark brown, and the shorter and thicker forceps. The black pronotum distinguishes it from *A. rufescens*, Kirb.*

Anisolabis albovittata, sp. n.

Nigra, pronoto postice albo-limbato: statura minore: caput valde convexum, globosum, suturis haud perspicuis, oculis minimis: antennæ testaceæ, unicolores: pronotum postice quam antice latius, prozona globoso-elevata; metazona, præsertim angulis posticis, deplanata, alba: elytra nulla: femora valde incrassata, nigra, genubus pallidioribus; tibiæ tarsique fusco-testacei: abdomen nitidum, læve; segmentum ultimum dorsale magnum, læve, haud tuberculatum: forcipis brachia valida, subcontigua, recta, conica, inermia. ♂.

* I take this opportunity of correcting an error in another paper of mine. In the *Ann. Mag. N. H.* (7), xi, 1903, p. 272, in distinguishing the two species, *A. læta* and *A. dubronyi*, I have inadvertently transposed their localities. *A. læta* is of course the West African species, and *A. dubronyi* is from Tenasserim.

	♂
Long. corporis . . .	6 mm.
„ forcipis . . .	0·3 „

Hab. MADAGASCAR, “Région du sud-est, Vallée du Fanjahira, Isaka (forêt),” 1 ♂, Dec. 1901. (*Ch. Alluaud*, Dec. 1901, Mus. Paris.)

A curious little species, with some superficial resemblance to an ant; it is characterized by the globular head, with obsolete sutures, and the elevated prozona of the pronotum, and depressed and white metazona.

Brachylabis malgacha, sp. n.

Nigra, sericeo-nitida, pilis brevissimis fulvo-auratis tota tomentosa. Caput nigrum, oculis haud prominulis; frons inter antennis media bi-impressa; antennae 15 segmentatae, nigrescentes, apicem versus pallidiores; segmento 1 longo, apice incrassato, 2 minimo angusto, 3 parvo, quam secundo duplo longiori, 4 quam 3 breviori, 5 quam 3 tam longo, ceteris gradatim longioribus et angustioribus. Pronotum oblongo-quadratum, capite sesquialongius, margine antico capite haud latius, lateribus paullo divergentibus, margine postico subrecto, quam margo anticus paullo latiori, angulis rotundatis; convexum medio transverse impressum, lateribus ipsis deplanatis et paullo reflexis. Mesonotum margine antico quam pronotum aequè latum, margine postico recto, subangustiori, lateribus carina subarcuata distincta instructum. Metanotum mesonoto paullo latius, margine antico recto, lateribus rectis, carinis nullis; margine postico profunde rotundato-emarginato. Pedes longi, graciles, praesertim postici; femoribus tibiisque nigrescentibus, genibus paullo pallidioribus; tarsi graciles, elongati, fulvo-pubescentes, toti testacei, segmento primo ceteris unitis vix longiori, 2 elongato, quam tertium vix breviori. Abdomen convexum, medio paullo dilatatum; plicis lateralibus segmenti secundi haud, segmenti tertii maxime distinctis; abdomen apicem versus attenuatum, segmento ultimo angusto, declive. Forecipis brachia basi subcontigua, basi incrassata, recta, dehinc gracilia, ♂ valde, ♀ sensim, incurva, apicem versus graciliora, apicibus ipsis acutissimis, decussatis. ♂ ♀.

	♂	♀ (after de Bormans).
Long. corporis . . .	11 mm.	12 mm.
„ thoracis . . .	4 „	5·75 „
„ forcipis . . .	2 „	2·75 „
„ femor. post. . .	3 „	
„ tib. post. . . .	2·5 „	

Hab. MADAGASCAR, "centre de l'île" (*de Bormans* MS., ♀♀ in Coll. Dohrn, and Coll. Brunner, No. 1530); DIEGO SUAREZ, 1 ♂ (*Ch. Alluaud*, Mus. Paris).

Among the unpublished notes in manuscript of my late friend M. de Bormans, I find the description of the female with a drawing; the two specimens which were his types are both females, and he did not know the male, of which I find a single specimen in the Paris collection; there seems to be little difference between the sexes; the branches of the forceps are more strongly curved in the male. In his notes, de Bormans writes, "Cette espèce est très voisine de *Br. nigra*, Scudder; elle ne s'en distingue que par sa taille, le prothorax plus long, la forme du penultième segment ventral, la teinte nullement verdâtre. Mais c'est surtout la différence extrême d'habitat qui m'empêche de la confondre avec cette espèce." The Paris specimen is carded, and so the ventral surface cannot be examined; the following is from the description of de Bormans:—

"Penultième segment ventral en arc d'ellipse transversal; non seulement il recouvre complètement le dernier segment ventral, mais il le déborde en arrière d'une longueur égale à celle du dernier segment dorsal."

"Dessous de l'abdomen de couleur un peu plus pâle que le dessus; de même consistance."

"Le bord postérieur de chaque segment du thorax et de l'abdomen, en dessus et en dessous, est hérissé de poils horizontaux, courts, fins, peu serrés et pâles."

"Tout le corps de l'insecte, en dessus et en dessous, est moiré et reconvert d'un duvet couché, fauve-doré, et visible seulement à l'aide d'une forte loupe."

NOTE ON THE *GONOLABIDÆ*.

Verhoeff's family *Gonolabidæ* is characterized by the form of the prosternum, which is strongly narrowed posteriorly, so that the first pair of legs have their insertion very close together. In *G. peringueyi*, Borm., the anterior coxæ are almost contiguous, but in the type of *G. kirbyi*, Burr, this narrowing is far less marked, though in this species the characteristic apical dilation of the abdomen is very pronounced. A *G. javana*, Borm., ♀ in my possession has also the normal parallel prosternum, but a ♀ of *G. silvestrii*, Borelli, has this plate much more

narrowed. *G. inea*, Burr, has the insertion of the anterior coxæ by no means contiguous, though the prosternum is somewhat narrowed.

This narrowing of the prosternum appears to accompany the apically dilated abdomen, for we find it in *Chelidura aptera*, Charp., *Ch. dilatata*, Lafr., although not so pronounced, and the coxæ are far from contiguous.

In the remarkable genus and species, *Gonolabina kuhlgatzi*, Verh., this narrowing is very marked, but yet the abdomen is not strongly dilated; it is broadest in the middle, though not very noticeably so.

In characterizing the *Gonolabidæ*, Verhoeff says, "Pygidium mit der 10. Dorsalplatte des Abdomens völlig verwachsen" (in which character they approach the *Apachyidæ*).

In *Gonolabis* itself there is no pygidium; Verhoeff's characterization is not clearly expressed, for he mentions the form of the pygidium in his characterization of the family, though in the typical genus *Gonolabis*, in his own words, the pygidium is "steil abfallend"; he is also incorrect in saying, "Zange des ♂ symmetrisch"; in *G. kirbyi*, Burr, the forceps are asymmetrical, as in *Anisolabis maritima*.

Gonolabina is a very curious genus, though Verhoeff fails to separate it readily from *Gonolabis*. It is in fact very distinct. The last segment of the abdomen of the ♂ is very curious in form, being strongly depressed between the forceps, forming an edge at the conjunction of the dorsal and ventral plates, and this part is strongly pubescent; the edge itself is furnished with two small tubercles, which apparently represent the pygidium. In the ♀ the pygidium takes the form of a blunt cone, and only in this sex is there a faint transverse line which indicates the point of fusion of the pygidium with the segment.

Verhoeff makes no references to the antennæ; except that they have 19 segments; the 1st segment is very large, the 2nd extremely small; the 3rd nearly as long as the 1st, the 4th hardly longer than the 2nd, the 5th a shade longer, the 6th slightly longer than broad, and onwards they gradually increase in length; I count 20 segments.

The head is black, and the mouth parts brown; the antennæ dark-brown, and the eyes prominent and white.

The body itself is bald, except the last abdominal segment of the male, which is covered with thick yellowish pubescence. The tibiæ and tarsi are pubescent and the femora have a few bristles; the second tarsal segment is not quite cylindrical, but slightly broadened and flattened, which may perhaps indicate a transition towards *Chelidura*.

Spongiphora geayi, sp. n.

Fusco-testacea. Caput supra margine postico pone oculos utrinque impresso-signatum: antennæ segmento 1 maximo, 2 minimo, 3 longiori, 4 breviori, dehinc sensim longioribus (segmenta 8 restant). Pronotum quadratum, antice rectangulum, postice rotundatum, prozona tumido-elevata, metazona deplanata, sulculo medio ante marginem posticum obsoleta instructa. Elytra ampla, fusco-testacea, macula humerali magna flava ornata; alæ amplæ, medio flavo-maculatæ. Metasternum punctis impressis duobus instructum, margine postico truncato. Mesosternum æque longum ac latum. Segmentum ultimum dorsale magnum, oblongum, læve, inerme. Lamina subgenitalis ♂ valde productum, prope basin lateribus parallelis, deinde sensim convergentibus, prope apicem iterum parallelis vel paullo divergentibus, apice ipso triangulari. Segmentum penultimum ventrale magnum, rotundatum, quadratum, margine postico medio paullo rotundato-excisum; segmentum ultimum parvum, extus penultimum, a latere visum, latum, brevissimum. Pygidium breve, transversum, tumidum, marginibus in laminam angustam circumeurrentem deplanatis, apice truncato, angulis lateralibus acutis. Forcipsis brachia valida, parallela, recta, margine interno usque ad apicem denticulata, margine interno ad tertiam partem longitudinis dente parvo acuto armata; apice tantum attenuata, acuta, haud vel vix incurva. ♂.

Long. corporis . . . 11 mm.

„ forcipis . . . 2·8 „

Hab. DARIEN. (*F. Geay*, 33-96, 1 ♂, Mus. Paris.)

A very distinct species, characterized by the form of the subgenital lamina and of the pygidium and forceps.

Spongiphora assiniensis, Borm.

De Bormans only knew the female of this species, of which I think I have found the male, from Fernando Po, in the Paris collection. The following are the characters of the male:—

Abdomen latum; segmentis 2 et 3 tuberculis lateralibus instructis; segmentum ultimum dorsale magnum, latum, læve, supra insertionem forcipis utrinque tuberculo obtuso instructum; pygidium breve, latum, transversum, margine postico in tubercula valida acuta producto; forcipis brachia basi remota, sat valida, depressa, lævia, brevia, incurva, margine interno medio dentibus parvis acutis duobus armata, apice attingentia. ♂.

♂

Long. corporis . . . 7 mm.
 „ forcipis . . . 1.5 „

Hab. WEST AFRICA, Assini (*de Bormans*); Fernando Po (*L. Conradt*, 1901. 2 ♂, 3 ♀. Mus. Paris).

In the short forceps, this species approaches *S. parvicollis* and *S. simiis*, but differs in the larger and broader pronotum; the form of the pygidium and forceps distinguish it easily from its other congeners.

Labia ochropus, Stål.

The Paris collection contains a *Labia* from Mayotte (Alluaud, 4-96), which I refer to this species; the specimen is so small, the wings cover the somewhat telescoped abdomen so completely, and the specimen is gummed to a card, that it is impossible to distinguish the sex, but from the shortness of the abdomen I imagine it to be a female. De Bormans (Tierreich, Forf., 1900, p. 70) credits the species with 11 segments to the antennæ, but this specimen has at least 13; the first is long and big, and the second, which is exceedingly small, is black; the third is a little longer, but the fourth is smaller than the third, and the remainder gradually increase in length towards the apex; segments 3-9 are yellowish, and the four apical segments black; the head is dull black, the pronotum is rather large, square, dark-brown like the elytra; the wing scales are yellow, with a narrow brownish spot on the suture; the feet and forceps are yellow and the abdomen black; the tibiæ have a small narrow dark-brown band; the pygidium is small, transverse, with two little sharp points; the branches of the forceps are remote at the base, simple, unarmed, regularly incurved, the points not crossed.

Stål records the species from Caffraria, and M. Henri Gadeau de Kerville possesses a female from German East Africa. It is probably widely distributed.

Labia alluaudi, sp. n.

L. mucronatæ, Stål, vicina. Statura majori; colore fusco-brunneo, nitenti, pallido-vittato vel -annulato; caput nigrum; antennæ 12-segmentatæ, segmentis 4 basalibus testaceis, 5-8 nigris, 9-10 albis, 11-12 nigris; pronotum quadratum, margine postico quam margine antico paullo latius, angulis rotundatis, medio nigrum, utrinque late pallido-vittatum. Elytra longa, apice recte truncata, nigra, media late pallido-vittata; alæ valde prominentes, fuscæ, externe late pallido-marginatæ; femora nigra, apice pallido-annulata; tibiæ tarsique testacei; abdomen nigrum, fulvo-nitens, plicis lateralibus distinctis: pygidium, ♂ prominens, oblongo-quadratum, margine postico profunde exciso, ♀ haud perspicua: forcipis brachia fusco-brunnea, basi pallido-annulata; ♂ basi remota, valida, recta, triquetra, prope basin margine interno dente parvo armata, dehinc inermia, sensim convergentia; ♀ recta, contigua, inermia; segmentum ultimum dorsale ♂ magnum, prope marginem posticum medio impressum, haud tuberculatum. ♂ ♀.

	♂	♀
Long. corporis . . .	8 mm.	7-8.5 mm.
„ forcipis . . .	3.5 „	1.5-2 „

Hab. MADAGASCAR, "Région du sud-est, Fort Dauphin, 3 ♂♂, janvier 1901," 3 ♂♂ (*Ch. Alluaud*, Mus. Paris); NOSSI-BÉ, 1 ♂ (*H. Pierron*, 1885, Mus. Paris); DIEGO, SUAREZ, 1 ♂, 4 ♀♀ (*Ch. Alluaud*, iv-96, Mus. Paris).

Allied to *L. mucronata*, but differs in the form of the pygidium and forceps of the male.

I am very pleased to dedicate it to that indefatigable collector, M. Charles Alluaud.

Labia triangulata, sp. n.

L. pygidiatæ vicina. Statura magna, colore rufo-brunneo, capite pronoto elytris fuscioribus; corpus totum pilis raris longis instructum. Caput nigrum, vel nigro-fuscum; antennæ 12-segmentatæ, 1 maximo, 2 minimo, 3 elongato, ceteris longis, validis, fuscæ, segmentis 5 apicalibus pallidioribus. Pronotum fusco-testaceum, quadratum, postice quam antice vix angustius, angulis rotundatis, in parte anteriori paullo tumidum, postice deplanatum, sulculo medio impresso. Elytra brevia, nigro-testacea, minute punctulata. Alæ abbreviatæ, haud perspicuæ. Pedes toti testacei. Abdomen longum, cylindricum, fulvo-rufum, postice leviter infuscatum; segmentum ultimum dorsale ♂ ♀ læve, margine postico medio leviter impresso, haud tuberculato. Pygidium, ♂ prominens, dilatatum, transversum,

utrinque atque apice in dentem productum, dente apicali obtusangulo, lateribusque acutis; ♀ haud perspicuum. Forcipsis brachia ♂ basi remota, valida, recta, margine interno medio dente forti armata, elongata, apicem versus acuminata, leviter incurva; ♀ basi subcontigua, validiora, inermia, recta, conica. ♂ ♀.

	♂	♀
Long. corporis . . .	7-7.5 mm.	6.25 mm.
„ forcipis . . .	1.75-2 „	1.25 „

Hab. DIEGO SUAREZ (*Alluaud*, 4-96, Mus. Paris).

This species is allied to *L. videns* and *L. pygidiata*, but differs in the distribution of colours, absence of wings, by the shape of the pygidium, which has the form of a transverse plate, produced posteriorly into a blunt point, while the lateral edges are angular, so that the organ assumes the shape of the 3-pointed lobe, whereas *L. pygidiata* has 4 points. In the larva the pygidium is straight, conical and pointed.

Labia insularis, sp. n.

L. amœnæ vicina. Colore fusco, pallido-variegato. Caput nigrum; antennæ 13-segmentatæ, segmentis 1-5, 10, 11 pallidæ, 6-9, 12, 13 nigræ. Pronotum nigrum, lateribus anguste fulvo-marginatis. Elytra magna, nigra, vitta magna lata flava media ornata. Alæ (sæpe abbreviatæ) flavæ, macula fusca ornata. Femora fusca, genubus pallidis; tibiæ pallidæ, medio fusco-annulatæ; tarsi toti pallidi. Abdomen nigrum, vel rufo-nigrum, plicis lateralibus distinctis; segmentum dorsale angustum, supra insertionem forcipis utrinque tuberculatum. Pygidium ægre distinguendum, ♂ breve, conicum. Forcipsis brachia: ♂ basi remota, rufa vel flava, margine interno prope basin dente parvo acuto armata, subrecta, sensim incurva, apice attingentia; ♀ sæpe colore fusciori, rufo, subcontigua, breviora, valida, conica, apice decussata. ♂ ♀.

	♂	♀
Long. corporis . . .	5-7.25 mm.	6.75-7 mm.
„ forcipis . . .	1-1.2 „	1-1.25 „

Hab. MADAGASCAR, ‘Région du sud-est, pays Androy, Imanombo,’ ix, 1901 (*Ch. Alluaud*, Mus. Paris); DIEGO SUAREZ (*Ch. Alluaud*, iv-96, Mus. Paris).

Allied to *L. amœna*, Stål, but differs in colour, and the shape of the pygidium and forceps; very variable in colour, but the females appears to be, as a rule, darker than the males. Of the two forms, the males are most numerous of the wingless, and the females of the winged forms. The

specimens from Imanombo are four winged males, and three larvæ; from Diego Suarez, one winged male and six females, and of the wingless form, eight males and one female.

Labia forceps, sp. n.

Caput convexum, pone oculos per suturam in duas regiones tumido-elevatas divisum: antennæ 12 segmentis, fusco-testaceæ, segmentis 2 apicalibus albis: pronotum magnum, quadratum: elytra brevia, fusco-testacea, ad humeros pallidiora, minutissime punctulata: alæ longæ, minutissime punctulatae, fusco-testacea: pedes fusco-testacei: abdomen latum, rufo-testaceum, tuberculis lateralibus indistinctis: segmentum ultimum dorsale transversum, læve: pygidium rectum, lateribus parallelis, apice truncatum et medio tuberculo parvo instructum; forcipis brachia basi remota, valida, depressa, recta, parallela, margine interno prope apicem dente acuto et forti armata, cum apicibus valde incurvis aream circularem includenti. ♂.

	♂
Long. corporis . . .	5.5 mm.
„ forcipis . . .	2 „

Hab. MADAGASCAR, “Région du sud-est, Vallée d’Ambolo, Col de Sakavalana, 1 ♂, Jan. 1901” (*Ch. Alluaud*, Mus. Paris).

Nearest perhaps to *L. videns*, Borm., but characterized by the form of the forceps.

Labia paradoxa, sp. n.

Fusco-castanea, lævis, valde nitens; corpus pilosum; caput fusco-rufum, supra nigrescens, oculis parvis, nigris; (antennæ . . . ?); pronotum quam caput æque latum, breve, transversum, lateribus rectis, angulis ipsis rotundatis, fusco-castaneum, angulis anticis pallescentibus. Elytra lata, fusco-castanea, apice fulvescentia: alæ prominentes, fusco-castaneæ: pedes breves, validi, testacei: abdomen basi angustum, dehinc dilatatum, paullo ante apicem latitudo maxima; segmentis 2 and 3 tuberculis lateralibus parvis instructis; segmentum ultimum dorsale magnum, breve, transversum, medio impressum, margine postico declivi, supra insertionem forcipis paullo tuberculatum; segmentum penultimum ventrale magnum, rotundatum, segmentum ultimum totum obtegens: pygidium transversum, breve, bituberculatum: forcipis brachia ♂ basi remota, basi ipso margine interno supra spina acuta armata, paullo incurva, ac deorsum decurva, subtus prope basin in parte angulata paullo excavata; subtus in medio longitudinis dente forti intus ac deorsum spectanti armata, tum horizontalia, incurva, inermia, apice attingentia. ♂.

♂

Long. corporis . . . 7.3 mm.
 „ forcipis . . . 1.8 „

Hab. ECUADOR, Mirador, Santa Inez, 4101 ft., 3, iv. 1 ♂.
 (Type in my collection.)

This is an aberrant form, which I have ranged in *Labia* on account of its cylindrical second tarsal segment; the form of the forceps is curious, and rather recalls that of some *Anechura* or *Chelidura*.

Platylabia gestroi, Bormans.

The Paris collection contains a female from Diego Suarez (Alluaud, 4-96), that I consider to be of this species; it is recorded from Fly River, New Guinea, and only the male has been described, the so-called female of Dubrony (Ann. Mus. Civ. Gen., xiv, 1879, p. 372) being the nymph.

If this is the true female, it hardly differs from the male; the pygidium has the same shape, but the branches of the forceps are simpler, not being dilated nor depressed on the inner margin. The colour is very dark, but the members of this genus and the allied genera *Sparatta* and *Chaetospania* often darken after death.

REVISION OF THE GENUS *CHÆTOSPANIA*, KARSCH.

TABLE OF SPECIES.

1. Pygidium ♂ haud perspicuum.
 (Statura minore; alæ abbreviatæ;
 species borneensis) 1. *parvula*, Burr.
- 1.1. Pygidium ♂ prominens.
 2. Pygidium ♂ 4-tuberculatum vel
 4-spinosum.
 3. Pygidium ♂ 4-tuberculatum;
 caput, elytra, alæ, abdomen
 nigra; pronotum, pedes, seg-
 mentum dorsale, forceps fulva. 2. *semifulva*, Borm.
 - 3.3. Pygidium ♂ in stellam 4-spi-
 nosam productum. Corpus uni-
 color fusco-testaceum. 3. *stella*, Burr.
- 2.2. Pygidium ♂ nec tuberculatum
 nec spinosum.

3. Antennæ unicolores. Forceps
 ♂ margine interno dentibus
 3 parvis armatus. (Pygidium
 ♂ ♀ parvum, quadratum,
 apice truncatum; corpus uni-
 color fusco-testaceum) . . . 4. *jupiter*, Burr.
- 3.3. Antennæ segmentis nonnullis
 pallidis. Forceps ♂ margine
 interno unidentatus.
4. Pygidium ♂ conicum, acutum;
 ♀ quadratum, postice leviter
 emarginatum. (Unicolor
 nigra, tarsi pallidis). . . 5. *volcana*, sp. n.
- 4.4. Pygidium ♂ oblongum vel
 quadratum. Color partim
 niger, partim rufo-testaceus.
5. Pygidium ♂ oblongum,
 apice excisum. Species
 orientalis 6. *fea*, Borm.
- 5.5. Pygidium ♂ parvum, quad-
 ratum, integrum. Species
 madagassæ 7. *inornata*, Karsch.

Chytospania volcana, sp. n.

Atra, segmentis ultimis antennarum tarsisque pallidis. Antennæ 11-segmentatæ, atræ, segmentis 2 ultimis pallidis; Pronotum quadratum, postice truncatum, antice subangustatum, capite haud angustius. Elytra minutissime punctulata, atra, postice oblique truncata; alæ atræ, valde prominentes. Pedes atrî, tarsi pallidis. Abdomen minutissime punctulatum, atrum, lateribus sparsim pilosis; segmentum ultimum dorsale atrum, simplex, quadratum, medio subimpersum. Pygidium: ♂ parvum, conicum, acutum; ♀ quadratum, prominulum, margine postico leviter emarginatum. Forcepîs braccia ♂ ♀ basi distantia, valida, subrecta, depressa, apice incurva, nigra vel nigro-rufa, margina interno medio utroque sexu laminato-depresso, in ♂ in dentem validum producto. ♂ ♀.

	♂	♀
Long. corporis . . .	7.5 mm.	9 mm.
„ forcipis . . .	3 „	2.5 „

Hab. DIEGO SUAREZ, iv, '96 (*Alluaud*, 13 ♂♂, 12 ♀♀, Mus. Paris).

Easy to distinguish by its plain black colour and the

form of the pygidium and forceps. It is the only species yet known in which the pygidium is shaped like a blunt cone.

Sparatta W-signata, sp. n.

Caput, pronotum, elytra, alæ atra; abdomen, pedes, forceps rufa; antennæ? 15-segmentatæ; pronotum antice angustatum, prozona elevata, metazona deplanata, sulculo medio instructum, utrinque indistincte impressum: elytra atque alæ aterrima, nitida. Pedes rufi, femoribus incrassatis, tibiisque gracillimis. Abdomen rufum nitidum, basi paullo constrictum; segmentum ultimum dorsale magnum, quadratum, læve, medio sulculo indistincto W-formato impressum, marginibus sulculis in carinulas indistinctas elevatis. Pygidium vix perspicuum, transverso-ovale. Forcepis brachia basi remota, paullo incrassata et divergentia, triquetra, margine inferiori interno crenulato, tum gracilia, parallela, medio dente acuto armata, deinde margine interno deplanato ac dilatato, in dentem acutum producto, in tertia parte apicali inermia, incurva, apice acuta, attingentia vel decussata. ♂.

♂

Long. corporis . . . 9·25-10·5 mm.
 „ forcipis . . . 3·5-4 „

Hab. MEXICO (*Lucas*), 2 ♂♂ (Mus. Paris); one has the left branch of the forceps simple and only partially developed.

Mecomera weissi, sp. n.

Caput, elytra, alæ atra: corpus, forceps, pedes rufa: antennæ 15 segmentis; segmento 3 brevissimo, 4 and 5 brevibus, ceteris elongatus; segmentis 1-6, 13, 14 rufis, 7-12, 15 nigris: pronotum paullo longius quam latius, margine antico convexo, postico rotundato: elytra ampla, lata; alæ prominentes: pedes unicolores: tarsi segmento primo brevi: abdomen rufum, lateribus nigro-variegatis, segmentis 2 and 3 tuberculo laterali distincto instructis: segmentum ultimum dorsale magnum, quadratum, margine postico medio trisulcato, angulis exterioribus acutis: pygidium breve, transversum, quadratum: forcepis brachia basi remota, depressa, elongata, subrecta, sensim incurva, denticulis 2 parvis armatis. ♂.

♂

Long. corporis . . . 11·6 mm.
 „ forcipis . . . 3·7 „

Hab. TONKIN, CENTRAL, “environs de Tuyen-Quan, vii-ix,” 1 ♂ (*A. Weiss*, 1901, Mus. Paris).

This species is quite different from the American *M. brunnea*, Serv., and from the Sumatran *M. modiglianii*, Borm.; in appearance it rather resembles a *Sparatta*, but is distinguished by the generic characters.

REVISION OF THE GENUS *OPISTHOCOSMIA*, DOHRN.

A number of new forms have been described since the publication of de Bormans' monograph, and so I have drawn up a new table of the species.

The species are as variable as in most genera of the *Dermatoptera*; it is common to find, in a series of one species from the same locality, specimens with spotted elytra and others with unspotted elytra; these varieties, which do not deserve the rank of sub-species, or a separate name, I have placed twice in the table.

I cannot admit Verhoeff's genus *Cosmiella*, which is only based upon the absence of wings, a notoriously unstable and valueless character; at the best, it can only be accepted as a sub-genus.

TABLE OF SPECIES.

1. Alæ abbreviatæ (*Cosmiella*, Verh.)
2. Forceps ♂ supra dente magno armatus 1. *rebus*, Burr.
- 2.2. Forceps supra dente nullo.
3. Segmentum ultimum dorsale ♂
♀ haud vel vix impressum nec tuberculatum; forcipis brachia ♂ basi contigua 2. *neolobophoroides*, Burr.
- 3.3. Segmentum ultimum dorsale ♂ distincte impressum et subtuberculatum; forcipis ♂ brachia basi haud contigua, paullo remota.
4. Colore nigro.
5. Pronotum abdomenque nitentia 3. *dubia*, Borm.
- 5.5. Pronotum abdomenque haud nitentia 4. *aptera*, Verhoeff.
- 4.4. Colore brunneo, fusco-variegato, cupite rubro. (Forceps ♂ inermis) 5. *micheli*, sp. n.

- 1.1. Alæ perfecte explicatæ.
2. Statura minore (6-7 mm.) . . . 6. *minuscula*, Borm.
- 2.2. Statura majore (10 mm. vel magis)
3. Forcipsis bracchia ♂ basi contigua.
4. Elytra maculata vel vittata.
5. Elytra vittata.
6. Elytra fusco-brunnea, medio anguste rufo-vittata; species madagassa 7. *hova*, Borm.
- 6.6. Elytra rufa, margine anteriori nigro-vittata; species orientalis . . . 8. *armata*, Haan.
- 5.5. Elytra maculata.
6. Elytrorum macula magna, ovalis; alæ rufo-flavæ, apice nigro-maculata 9. *humeralis*, Kirb.
- 6.6. Elytrorum macula minima; alæ apice pallido-punctatæ.
7. Antennæ unicolores; forcipsis bracchia ♂ basi divergentia, dente superno basali armata 10. *beccarii*, Borm.
- 7.7. Antennæ pallido-an-nulate; forcipsis bracchia ♂ basi parallela, contigua, dente superno armata . . . 11. *forcipata*, Haan.
- 4.4. Elytra unicoloria.
5. Color niger.
6. Forcipsis bracchia ♂ per primam dimidiam longitudinis recta, parallela, subcontigua 12. *erroris*, sp. n.
- 6.6. Forcipsis bracchia ♂ basi leviter divergentia, haud parallela.
7. Forceps ♂ inermis . . . 13. *burri*, Borm.
- 7.7. Forceps ♂ dentatus.
8. Forcipsis bracchia ♂ dente uno medio forti armata . . . 14. *vicina*, sp. n.

- 8.8. Forcipes brachia ♂
dentibus duobus
armata.
9. Antennæ pallido-
annulatæ ; seg-
mentum ultimum
dorsale haud cari-
natum 15. *lugens*, Borm.
- 9.9. Antennæ unicol-
ores. Segmentum
ultimum dorsale
supra carinatum. 16. *nevilli*, sp. n.
- 5.5. Color brunneus.
6. Antennæ unicolores.
7. Forcipes brachia ♂
basi ipso parallela,
intus dentibus 2 arm-
ata ; statura, minore,
gracili 17. *ceylonica*, Motsch.
- 7.7. Forcipes brachia ♂
basi ipso divergentia,
dente interno uno
minimo vel nullo ;
stature majore, robu-
stiori 18. *insignis*, Haan.
- 6.6. Antennæ annulatæ.
7. Abdomen lateribus
tuberculatis.
8. Abdominis segmenta
6 and 7 in dentes
obtusos, 8 indentem
acutum producta . 19. *dux*, Borm.
- 8.8. Abdominis segmenta
6-8 in tubercula
obtusa producta ;
(fore. brachia ♂
supra dente forti
obtuso armata) . . 18. *insignis*, Haan.
- 7.7. Abdomen lateribus in-
ermibus.
8. Forceps margine in-
terno ♂ inermis,
bracchiis subparal-
lelis 20. *tenella*, Haan.

- 8.8. Forcipsis brachia ♂
 margine interno
 dente uno acuto
 armata, apicem ver-
 sus aream ovalem
 includentia . . . 21. *forcipata*, Haan.
- 3.3. Forcipsis brachia ♂ basi remota,
 haud contigua.
4. Elytra maculata vel vittata.
5. Elytra brunnea, flavo-maculata 22. *centurio*, Haan.
- 5.5. Elytra nigra, indistincte
 extus fusco-rufo-vittata . 23. *oannes*, Burr.
- 4.4. Elytra unicoloria.
5. Forcipsis brachia ♂ tum
 divergentia, tum convergentia,
 tum sursum, tum deorsum curvata.
6. Forcipsis brachia ♂
 deorsum ac sursum curvata,
 dentibus fortibus armata.
7. Abdominis segmenta
 lateribus 2-5 tuberculata 24. *cervipyga*, Kirb.
- 7.7. Abdominis lateribus
 segmentis 2 and 3 tuberculatis. 25. *longipes*, Haan.
- 6.6. Forcipsis brachia ♂ horizontalia,
 primum divergentia, deinde convergentia.
7. Colore metallico, atro, nitido;
 elytra aëque atra 26. *biroi*, Burr.
- 7.7. Colore haud nitido, brunneo;
 alis maculatis 27. *simplex*, Borm.
- 5.5. Forcipsis brachia ♂ subparallela,
 vel subsinuata.
6. Forcipsis brachia ♂ dente unico armata.
7. Forcipsis dente horizontali margine in-

- terno, acuto. (Antennæ apice pallido-annulatæ) 28. *brahma*, sp. n.
- 7.7. Forcipis dente verticali.
8. Species orientales.
9. Color fuscus, alis flavis, capite rubro 29. *annandalei*, sp. n.
- 9.9. Color niger. . . . 30. *shelfordi*, sp. n.
- 8.8. Species americana ; color unicolor, brunneus 31. *americana*, Borm.
- 6.6. Forcipis bracchia ♂ dentibus duobus armata.
7. Species americana.
- Forcipis bracchia ♂ aream basalem includentia, apicem versus contigua 31. *amazonensis*, Borm.
- 7.7. Species orientales.
- Forcipis bracchia ♂ apice non contigua.
8. Forcipis bracchia ♀ gracilia, dente primo acuto 30. *temora*, sp. n.
- 8.8. Forcipis bracchia ♂ robustiora, dente primo obtuso, verticali.
9. Forcipis dente secundo ante medium, sito, margine interno denticulato . . 31. *komarowi*, Sem.
- 9.9. Forcipis dente secundo paullo ante apicem sito, margine interno integro 21. *oannes*, Burr.

Opisthocosmia micheli, sp. n.

Statura minori ; caput rubrum ; antennæ . . . ? (restant segmenta unicoloria fusca 10) ; pronotum latum ; capite vix angustius,

quadratum, fuscum, lateribus pallidioribus. Elytra fulvo-fusca, indistincte utrinque nigro-marginata, brevia, apice truncata; alæ abbreviatæ; pedes unicolores, fusco-testacei, graciles; abdomen nigrum, sensim dilatatum, sed apice angustatum, segmentis lateralibus, ♂ 2-4, ♀ 3-4 tuberculis pliciformibus instructis, quorum posticum maximum; abdomen nigrum, haud nitens; segmentum ultimum dorsale ♂ parvum, angustatum, haud tuberculatum, medio impressum, ♀ declive, angustius, medio profunde triangulariter impressum; segmentum ultimum ventrale ♂ angustum, transversum, ♀ ovale; pygidium ♂ haud perspicuum, ♀ minimum, conicum: forcipis bracchia, ♂ basi subcontigua, valida, inermia, subrecta, apice flexuoso-incurva, decussata; ♀ brevia, simplicia, recta. ♂ ♀.

	♂	♀
Long. corporis . . .	7.5 mm.	10 mm.
„ forcipis . . .	2.5 „	2.25 „

Hab. ABYSSINIA, 1 ♂, 1 ♀ (Mission de Bonchamps, *Ch. Michel* and *M. Potter*, Mus. Paris).

Allied to *O. hora*, Borm., but differs in its stouter build and darker colour. From *O. aptera*, which I only know from Verhoeff's description, it differs in its paler colour, reddish head, and unarmed forceps.

Opisthocosmia erroris, sp. n.

Statura majore. Niger. Antennæ (?) 13 segmentatæ, apicem versus pallido-annulatæ. Pronotum capite angustius, medio nigrum, paullo elevatum, marginibus lateralibus rufescentibus, reflexis, margine antico recto, postico rotundato. Elytra haud nitida, atra, lata; alæ nigrae, basi atque apice rufo-punctatæ. Pedes graciles, longi, rufo-nigri. Abdomen nigrum, vix dilatatum, segmentis lateralibus 3-4 ♂, 4 ♀ (ut videtur) tuberculis instructum; segmentum ultimum dorsale declive, angustum, margine postico recto, ♂ supra insertionem forcipis utrinque tuberculo obtuso instructum; ♀ declive, angustius, vix tuberculatum; segmentum penultimum ventrale rotundatum. Forecipis bracchia; ♂ nigra, rufescentia, basi contigua, parallela, inermia, rectissima usque secundam tertiam partem longitudinis; tum dente acuto forti superno armata, subito ovale-curvata, aream ovalem includentia; apice paullo incrassata, dente margine interno valida armata, tum iterum recta, contigua, attenuata, apice ipso mucronibus decussatis; ♀ recta, gracilia, simplicia. ♂ ♀.

	♂	♀
Long. corporis . . .	11.5 mm.	11-14 mm.
„ forcipis . . .	7.75 „	5.25-6.5 „

Hab. SARAWAK, Penrissen, v, 1899 (*Shelford*, type in my collection); MALACCA PENINSULA (*Errington de la Croix* and *P. Chapé*, 1899; Mus. Paris).

Opisthocosmia lugens, Burr, 1900. Ann. Mag. N. H. (7), vi, p. 101 (nec de Bormans).

I first confused this species with *O. lugens*, Borm., but have since been able to examine the type of the latter; it is a distinct species, characterized chiefly by the form of the ♂ forceps. The Paris specimen has unfortunately lost the forceps, but the rest of the body agrees with *O. erroris*.

Opisthocosmia vicina, sp. n.

Tota nigra, nitida; *O. lugenti* vicina; ab ea differt elytra nitidioribus, abdomine nitido sed haud æneo-nitenti; forcipis brachiis ♂ dente unico, minus forti, armatis. ♂ ♀.

	♂	♀
Long. corporis . . .	9 mm.	9.5 mm.
„ forcipis . . .	4 „	5 „

Hab. SARAWAK, Matang, iv, vi, 1900. 1 ♂, 3 ♀♀; Penrissen, iv, 1899. 1 ♀ (*Shelford*).

Closely allied to *O. lugens*, Borm., but differs in the points indicated in the description.

Opisthocosmia nevilli, sp. n.

Statura majore; nigerrima, nitidissima (♀ variat colore rufo-nigro, minus nitido); corpus gracile, elongatum, glabrum. Antennæ 12-segmentatæ, nigrae vel brunneae. Caput tumidum, nigrum, æneo-nitens, oculis parvis atris. Pronotum atrum, æneo-nitens, laeve, antice tumidum, postice deplanatum, margine antico subrecto, postico deplanato. Elytra rufo-nigra, laevia, haud nitida, postice truncata; alæ atræ, laeves, nitidæ, apice suturæ pallido-punctatæ. Pedes rufo-nigrae, geniculis fuscioribus. Abdomen nigerrimum (♀ nigro-rufum), laete æneo-nitens, minute punctulatum, elongatum, medio dilatatum, apicem versus attenuatum; plicis lateralibus valde distinctis; segmenta 4-6 etiam lateribus tuberculis pliciformibus instructa. Segmentum ultimum dorsale ♂ transversum, utrinque carinis 2, ab apice basin versus oblique ductis, instructum, valde declive, medio inter carinas lateralibus superioribus profunde

impersum; margine postico subrotundato, medio bituberculato, angulis externis acutis; ♀ valde declive, attenuatum, margine postico subbituberculato, simplex. Pygidium haud perspicuum, ab infero visum, parvum, obtusum ♂ ♀. Forcispis brachia: ♂ longissima, gracilia, basi subcontigua, usque ad tertiam partem apicalem sensim divergentia, deinde ovato-incurva, apicibus decussatis, margine interno basi ipso crenulato; tertia parte basali margine interno supra dente forte laminato sursum spectanti armata, tertia parte apicali margine interno dente valido acuto armata; ♀ basi subcontigua, subrecta, paullo divergentia, apicem versus incurva, apicibus decussatis, margine intero plus minus crenulata. ♂ ♀.

	♂	♀
Long. corporis . . .	11·5–15·5 mm.	10–12·5 mm.
„ forcispis . . .	8·5–11·5 „	6·7 „

Hab. INDIA (Dohrn Coll.). INDIA, Bhoutan, Maria-Basti (*Mgr. Duvell, R. Oberthur, 1898.* 3 ♂♂, 5 ♀♀. Mus. Paris).

This fine species was described in manuscript some years ago by de Bormans; his type was a male, then unique, in the Dohrn Collection, of which the feet and antennæ were missing.

It is a very distinct species, chiefly remarkable from the colour and form of the forceps; in colour and general appearance it resembles superficially *Anechura metallica*, Dohrn, and, in fact, the females of the two species might be confused, but in the latter the elytra are finely granulated, while they are smooth in *O. nevilli*.

The female is lighter in colour than the male, and smaller; the colour tends rather to dark-reddish. De Bormans' specimens were somewhat larger than those in the Paris collection. In his notes he gives the following dimensions: length of body, 14 mm.; of the forceps, 13·75 mm.

Opisthocosmia brahma, sp. n.

Gracilis; brunnea, capite pedibusque pallidis. Antennæ 12-segmentatæ, fuscæ, segmentis 10 and 11 albis; caput rufo-testaceum, oculis nigris. Pronotum quadratum, capite haud angustius, margine antico recto, postico subrotundato, colore nigrum, lateribus pallido-marginatum. Elytra unicoloria fusco-brunnea; alæ valde prominentes, fusco-brunneæ, apice suturæ pallido-maculatæ. Pedes testacei. Abdomen gracile, apicem versus attenuatum, nigro-

brunneum, nitidum, tuberculis lateralibus valde distinctis; segmentis 8 and 9 attenuatis; segmentum ultimum dorsale attenuatum, margine postico subrecto, supra insertionem forcipis obtuse bituberculato, angulis externis acuto-productis. Pygidium haud perspicuum. Forcipsis brachia basi remota, nigra, subrecta, gracilia, elongata, horizontalia, nec sursum nec deorsum curvata, apicem versus incurva, apicibus ipsis valde decussatis, margine interno medio paullo deplanata et dilatata, dente forte acuto armata. ♂. ♀ ignota.

	♂
Long. corporis . . .	11-12 m.m.
„ forcipis . . .	5.5-6 „

Hab. INDIA BOREALIS, Dardjiling (*Harmand*, 2854-90), and Bhoutan, Maria-Basti (Coll. Mgr. Durell, *R. Oberthur*, 1898. 2 ♂♂. Mus. Paris).

This is not closely allied to any known species; it falls nearest, perhaps, to *O. nevilli*, Borm. Its distinguishing points are the coloration, the horizontal forceps, with no upper teeth, and only one tooth on the inner margin.

Opisthocosmia annandalei, sp. n.

Statura majore. Caput rubrum; antennæ 11-segmentatæ, fusæ, segmento 9 albido; pronotum quadratum, postice rotundatum, nitidum, nigro-badium, marginibus luteis; elytra badia, apice emarginata; alæ prominentes, citrinæ, margine interno atromarginatæ, apice macula atra ornata; pedes citrini, genibus atris; abdomen cylindricum, punctulatum, badium, inerme; segmentum ultimum dorsale angustum, quadratum, margine postico utrinque tuberculatum; pygidium breve, bilobum, lobis obtusis; forcipis brachia ♂ gracilia, basi remota subsinuata, nigra, mucronibus valde decussatis, medio supra dente valido conico armata. ♂. ♀ ignota.

	♂
Long. corporis . . .	13 mm.
„ forcipis . . .	7.75 „

Head clear reddish-brown, shining, sutures indistinct, eyes small, black; antennæ with 11 segments, dark brown, except the 9th which is white. Palpi testaceous, darker at the apex. Pronotum almost as broad as the head, straight on the anterior border, the posterior border rounded; shining blackish-brown, the margins clear transparent luteous. Elytra considerably broader than the pronotum at the shoulders, smooth, dull brown, short, the posterior margins sinuate. Wings prominent, clear yellow, with the inner

margin bordered with black, and a black spot at the apex. Feet slender, clear yellow, the knees black. Abdomen cylindrical, finely punctulated, lateral tubercles very distinct; on each segment, at the side, there is a smooth non-punctulate patch, resembling obsolete tubercles; colour blackish-brown; last segment slightly narrower than the preceding, square, the hinder border straight, with a small tubercle above the insertion of the forceps on each side; the outer angles distinct. Pygidium small, obtuse, bifid at the extremity. Forceps ♂ with the branches slender, remote at the base, cylindrical, nearly straight, subsinuate, black, the apices strongly incurved and strongly crossing; just before the middle on each branch above there is a strong sharp tooth, pointing upwards and backwards; seen from the side the forceps are subsinuate.

Hab. SIAMESE MALAY PROVINCES, Nawnchik, Bukit Bear, April 30th, 1899. "From long grass." 1 ♂.

This is a very handsome species, and I am very pleased to dedicate it to my friend, Mr. Annandale.

It is allied possibly to *O. duw*, Borm., but differs in colour and in the form of the forceps. Its very distinct colour distinguishes it at a glance from any known form.

The specimen is carded, and so it is impossible to examine the under-surface.

Opisthocosmia shelfordi, sp. n.

Nigra, nitida; antennæ nigrae, haud annulatæ; pronotum capite aëque latum, antice rectum, postice rotundatum, nigrum, lateribus pallido-marginatum; abdomen nitidum, tuberculis lateralibus distinctis; segmentum ultimum dorsale parvum, declive, medio impressum, supra insertionem forcipis utrinque tuberculatum; apud ♀, inerme; pygidium haud perspicuum; forcipis brachia, ♂ basi remota, gracilia, recta, horizontalia, sensim incurva, medio margine interno supra dente acuto, intus ac sursum spectanti, armata, apice decussata; ♀, inermia, gracilia, incurva. ♂ ♀.

	♂	♀
Long. corporis . . .	7·3-9 mm.	8 mm.
„ forcipis . . .	4·5-7·4 „	4·5 „

Hab. SARAWAK, Kuching, i, iii, v, ix, 1900-3 (*Shelford*). 4 ♂, 1 ♀.

Allied to *O. americana*.

Opisthocosmia temora, sp. n.

Nigra, nitida. Antennæ . . . (5 segmenta restant) fusca. Caput fuscum, suturis valde perspicuis. Pronotum capite angustius,

quadratum, margine antico recto, postico subrotundato, angulis rotundatis. Elytra brunnea, unicoloria, postice oblique truncata. Alæ brunneæ, extus indistincte pallido-vittatæ. Pedes testacei, hirsuti. Abdomen nigrum, nitidum, parallelum, apicem versus paullo dilatatum; segmentum ultimum dorsale abdomine angustius, quadratum, declive, nigrum, nitidum, læve, margine postico recto, supra insertionem forcipis subtuberculato, extus angulato. Pygidium vix perspicuum, parvum, breve, obtusum. Forcipis brachia valde pubescentia, nigra subrecta, paullo flexuosa, basi remota et paullo divergentia, paullo ante medium sensim convergentia, deinde recta, apicibus incurvis, attingentibus, margine interno dentibus acutis duobus oblique sursum spectantibus, altero paullo ante, altero paullo pone medium, armata. ♂. ♀ ignota.

	♂
Long. corporis . . .	9·7 mm.
„ forcipis . . .	6 „

Hab. INDIA BOREALIS, Dardjiling; 1 ♂ (*Harmand*, 2854-90. Mus. Paris).

Not closely allied to any described species; it is nearest, perhaps, to *O. lugens*, Borm.

Anechura schlagintweiti, sp. n.

Robusta, glabra, nitida, nigerrima. Antennæ 11-segmentatæ, typicæ, segmento 2 parvo, 3 longiori, 4 quam 3 breviori, dehinc elongatis; fusco-brunneæ vel nigre; caput totum læve, nigrum, nitidum, suturis vix perspicuis. Pronotum totum læve, nigrum, oblongum, latius quam longius, quam caput æque latum, margine antico recto, postico subrotundato, angulis omnibus rotundatis, lateribus reflexis, angulis anticis margine antico in carinas parvas breviter productis. Elytra lævia, nigra, postice truncata; alæ valde prominentes, læves, nigre. Pedes nigri, valde compressi, tarsis brunneis, pallido-pubescentibus. Abdomen depressum, latum, tuberculis lateralibus valde distinctis, læve, nigrum; ♂ valde depressum, apice dilatatum, breve; ♀ minus depressum, longius, in tertia parte apicali dilatatum; segmentum ultimum dorsale ♂ abdomine angustius, breve, transversum, nitidum, læve, nigrum, margine postico recto, medio irregulariter tumido, angulis externis supra paullo impresso; ♀ angustum, simplex, attenuatum. Pygidium vix perspicuum, brevissimum, obtusum. Forcipis brachia: ♂ robusta, brevia, depressa, basi parum distantia, basi margine interno dente valido et crasso armata, basi depressa et paullo dilatata, deinde divergentia, transverso-ovato valde incurva, apicibus

haud attangentibus, inermia; ♀ simplicia, recta, subcontigua, inermia, apicibus incurvis, attingentibus vel decussatis. ♂ ♀.

	♂	♀
Long. corporis . . .	10-11·5 mm.	12-14 mm.
Lat. pronoti . . .	1·25-2·8 „	„
Lat. max. abdominis .	4·7 „	4 „
Long. forcipis . . .	3 „	3·5 „
Lat. max. forcipis . .	4 „	1 „

Hab. TIBET, Lahol, 1 ♂ (Coll. Dohrn, Borm. in MS., captured by the brothers Schlagintweit). INDIA BOREALIS, Dardjiling, 4 ♂♂, 2 ♀♀. (*Harmand*, 2854-90. Mus. Paris).

This species is described under this name in the manuscript notes of M. de Bormans, from a single male in the Dohrn collection; the Paris collection containing four males and two (hitherto unknown) females, I have re-described it. It is a very distinct species, most nearly resembling *A. hermes*, Burr, from Sarawak; it is characterized by the uniform black colour, strongly depressed but robust body, the shape of the forceps, which are unarmed, except for the stout but blunt tooth at the base on the inner margin and by the depressed and dilated abdomen of the male, which is very short, and very broad at the apex; the last three or four segments are pushed into each other in a telescopic fashion.

One male is remarkably deformed, only the left branch of the forceps being developed; this is perfect, but the right branch is represented only by a blunt tubercle; it may have been broken off in the larval stage, and not reformed; had this right branch been but slightly more developed, and so been straight and simple, the insect would have had the appearance of a hermaphrodite, and I am strongly of opinion that the so-called cases of hermaphroditism or gynandromorphism occurring not uncommonly in the Forficularia, are due to arrested development of one branch, for, in all examples that I have examined, the abdomen has clearly shown the typical nine segments of the male. It is by no means an uncommon phenomenon in the insects of this order to have the forceps poorly developed, and this may occur from a variety of causes in both, or only in a single branch.

ODONTOPSALIS, nov. gen.

Anechuræ et *Apterygidæ* vicinum genus. Corpus robustum; antennæ 12-segmentatæ, 1 magno, valido, apice incrassato, 2 minimo, 3 longo, 4 quam tertium vix brevius, ceteris elongatis; pronotum magnum, transverso-quadratum, capite haud angustius. Elytra alæque perfecte explicata. Pedes validi, segmento secundo tarsorum valde dilatato. Abdomen robustum, plus minus depressum, apud ♂ apicem versus dilatatum, ♀ medio dilatatum, apice attenuatum; segmentis 2 and 3 tuberculis lateralibus distinctis instructis; segmentum ultimum dorsale ♂ breve, latum, margine postico tuberculatum; apud ♀ declive, attenuatum; segmentum penultimum ventrale transversum, margine postico rotundato, segmentum ultimum obtegens, apud ♀ longius, rotundatum. Pygidium ♂ brevissime, haud productum, valde obtusum, apud ♀ breve, quadratum, apice truncatum, vel conicum. Forcipis brachia ♂ valida basi remota, triquetra, sensim incurva, apicibus haud attingentibus, prope basin dente valido armata.

- Ab *Anechura* differt : pedibus brevibus, robustis; antennarum segmento 4 longiori.
 Ab *Apterygida* ,, : statura valde robustiori, abdomine dilatato.
 A *Chelidura* ,, : elytris alisque perfecte explicatis.
 A *Forficula* ,, : forcipis brachiis ♂ nec dilatatis nec deplanatis.

Typus generis: *Odontopsalis harmandi*, Burr, sp. n.

This genus caused me some hesitation. The three males which I have described as *O. harmandi* have the appearance of a winged *Chelidura*; another form, which I have described under the name *O. lewisi*, scarcely differs from *O. harmandi*, but yet more nearly approaches the typical species of *Apterygida*. Of the latter species, I have long possessed one which I regarded as *A. japonica*, Borm.; later, I acquired a male and two females, labelled by de Bormans himself, "*A. japonica*, Borm." As a matter of fact, the forceps are entirely different from those of the true *A. japonica*; the latter species could be placed in *Apterygida* with justification, but still it is impossible to separate it from *O. harmandi*, which certainly requires the erection of a new genus; the females of the two new species are almost identical.

TABLE OF SPECIES.

1. Forcipsis bracchia ♂ dente valido obtuso deorsum ac introrsum spectanti, haud bifido, armata. (Abdomen subparallelum, vix dilatatum). 1. *japonica*, Borm.
- 1.1. Forcipsis bracchia ♂ dente valido apice bifido, sursum ac introrsum spectanti, armata.
2. Abdomen ♂ breve, depressum postice valde dilatatum; segmentum ultimum dorsale margine postico fortiter tuberculatum; pedes breviores 2. *harmandi*, sp. n.
- 2.2. Abdomen ♂ longius, minus depressum ac dilatatum, apice paullo angustatum; segmentum ultimum dorsale ♂ margine postico leviter tuberculatum. Pedes longiores 3. *lewisi*, sp. n.

Odontopsalis harmandi, sp. n.

Corpus robustum, depressum; colore fusco-castaneo; antennæ brunneæ; pronotum transversum, latius quam longius, quam caput æque latum, margine antico recto, lateribus parallelis, margine postico rotundato, angulis rotundatis, medio paullo elevatum, sulculo medio impresso, lateribus paullo reflexis. Elytra lata, lævia, apice truncata; alæ sordide flavæ, vel flavo-brunneæ, apice infuscatæ. Pedes breves, incrassati, castanei. Abdomen depressum, apud ♂ usque ad apicem sensim dilatatum, apud ♀ minus depressum, subdilatatum, apice attenuatum; segmentum ultimum dorsale breve, truncatum, læve, medio impresso, margine ipso postico medio reflexo, ita tuberculum obtusum triangulare formanti, supra insertionem forcipis utrinque tuberculo valido magno mammæformi instructum; ♀ parvum, declive, haud vel vix tuberculatum. Pygidium ♂ haud prominens, brevissime, obtusissimum; ♀ breve, quadratum. Forcipsis bracchia: ♂ robusta, basi triquetra, brevia, sensim incurva, margine superiori dente robusto valido sursum atque introrsum spectanti, apice bifido, acute bimucronato, amata, apicibus haud attingentibus. ♂ (? ♀).

	♂
Long. corporis	9·25-9·75 mm.
Latit. minim. abdom. . .	2·5-3 ,,
,, max. ,, . .	3·75-4 ,,
Long. forcipis	2·5-2·75 ,,

Hab. JAPAN, CENTRAL. 3 ♂♂, 1 ♀ (*J. Harmand*, 1900. Mus. Paris).

This species has the appearance of a *Chelidura* or *Gonolalis*, quite different from *Apterygida*. The stout build, strong toothed forceps and general form lead me to separate it even from that heterogeneous group.

Odontopsalis lewisi, sp. n.

Nigra, vel fusco-castanea, alis flavescens, nigro-maculatis. *O. harmandi* vicina; ab eo differt, statura majore, minus depresso, colore fusciori, abdomine minus dilatato ac deplanato, segmento ultimo dorsali ♂ tuberculis minimis instructo, forcipe graciliori, longiori, dentibus minus validis, pedibus longioribus, gracilioribus.
♂ ♀.

	♂	♀
Long. corporis . . .	14 mm.	12·5-13·75 mm.
Latit. minim. abdom. . .	2·5 „	—
„ max. „ . . .	4 „	—
Long. forcipis . . .	4 „	2·5-3 „

Hab. JAPAN, Yeso (1 ♂, 1 ♀, *Bonnet*, 1886, now in my collection); Hako, on trees, 12 v. '81, 1 ♀ (*G. Lewis*, ex Coll. de Bormans, now in my collection); "JAPON," 1 ♂, 1 ♀ (my collection); "JAPON CENTRAL," 2 ♀♀ (*J. Harmand*, 1900; Mus. Paris). (Type in my collection.)

The three specimens in my possession which came from de Bormans' collection were determined by that author as *Apterygida japonica*, Borm., but the forceps are totally different from those of the true *A. japonica*, as described and figured by de Bormans, and in the Paris collection there is a male which corresponds exactly with de Bormans' description.

The females of these two new species are extremely alike; the ♂ and 3 ♀♀ in the Paris collection are very dark in colour, but the male and female in my collection, from the same locality, rather approach *O. harmandi* in colour—that is to say, are much paler. It is possible that these two species are not really distinct, but that it is a single species, in which the male is dimorphic.

Apterygida bonchampsii, sp. n.

A. erythrocephala, Oliv., valde affinis. Caput, antennæ, pronotum, elytra, alæ, pedes flava; abdomen forcepsque rubra. Antennæ totæ

flavæ, segmento 2 minimo, 3, 4 ceteris que longioribus, 13-segmentatæ; pronotum longius quam latius, capite paullo angustius, postice quam antice paullo latius, margine antico recto, postico subrotundato, medio paullo elevatum, flavum, lateribus pellucidis. Elytra longa, flava, sutura anguste fusco-vittata; alæ flavæ; pedes toti pallidi, flavi. Abdomen rufum, cylindricum, tuberculis laterilibus distinctis, nigro-circumdatis; segmentum ultimum dorsale ♂ transversum, margine postico supra insertionem forcipis subtuberculatum, apud ♀ postice leviter angustius, vix tuberculatum. Pygidium, ♂ transversum, quadratum, simplex, margine postico recto, ♀ conicum, apice truncatum. Forcipsis brachia: ♂ basi remota, gracilia, margine, interno basi dente depresso acuto armata, dehinc minute crenulato, pone medium dente parvo interno armata, subflexuosa, apicibus attingentibus; ♀ longa, subrecta, levissime flexuosa, basi margine interno subdentata, dehinc inermia, simplicia. ♂ ♀.

	♂	♀
Long. corporis . . .	12-12.5 mm.	10.5-12 mm.
„ forcipis . . .	4-4.5 „	4 „

Hab. ABYSSINIA, 4 ♂♂, 2 ♀♀ (Mission de Bonchamps, *Ch. Michel et M. Potter*, 1899; Mus. Paris).

This fine species is closely allied to *A. erythrocephala*; it differs in its paler colour, the fore part of the body being entirely clear yellow, except a narrow sutural band down the elytra, which is a little darker; in the form of the forceps, which have the inner margin crenulated and armed with a tooth at the second third of their length; the branches are also less regularly curved, but gently sinuate; in the female, the branches are longer than in *A. erythrocephala*, less straight and armed near the base on the inner margin with a small blunt tooth.

Apterygida vishnu, sp. n.

Corpus elongatum, gracile. Color rufo-brunneus. Antennæ 10-segmentatæ, nigrae, unicolores, sparsim pallido-pubescentes; segmento 2 minimo, a 3 vix diviso, 3 longo, 4 quam 3 paullo brevius, ceteris elongatis. Caput fusco-rufum, læve, nitidum. Pronotum capite vix angustius, quadratum, margine antico recto, postico subrotundato, læve, nigrum, nitidum, lateribus et postice pallido-marginatum. Elytra lævia, rufo-brunnea. Alæ longæ, fusca, extus rufo-vittatæ, apice suturæ pallido-punctatæ. Pedes fuscii, tarsi pallidioribus. Abdomen gracile, apicem versus attenuatum, minutissime punctulatum, fusco-rufum vel nigrum, tuberculis lateralibus

valde perspicuis ; segmentum ultimum dorsale rufo-nigrum, transversum, margine postico subrecto, medio impressum, supra insertionem forcipis obtuse subtuberculatum, angulis externis posticis rectis. Pygidium vix vel haud perspicuum, breve, obtusum. Forcipis brachia : ♂ basi remota, gracilia, valde elongata, subrecta, apicem versus ovato-incurva, apicibus ipsis attingentibus vel decussatis, paullo ante medium margine interno dente valido acuto, nonnihil sursum oblique spectanti, armata. ♂. ♀ ignota.

	♂
Long. corporis . . .	8.5-10 mm.
„ forcipis . . .	5-8 „

Hab. INDIA BOREALIS, Dardjiling (*Harmand*, 2854-90 ; 4 ♂♂ ; Mus. Paris).

Allied to *A. sansibarica*, Karsch., and *A. mackinderi*, Burr, falling into the group with long slender forceps, unspotted elytra, unicolorous antennæ, simple pygidium, unarmed last dorsal segment, and fully-developed wings.

Forficula mikado, sp. n.

Statura robusta ; colore rufo-castaneo, elytris alisque pallidoribus. Caput fusco-rufum, suturis haud perspicuis ; antennæ brunneæ, 12-segmentatæ, segmento 2 minimo, 4 quam tertium paullo breviori. Pronotum latum, capite vix angustius, fusco-rufum, pallido-marginatum, margine antico recto, angulis haud rotundatis, margine postico angulisque posticis rotundatis, prozona tumida, interdum utrinque tuberculo minimo indistincto instructa, metazona deplanata, lateribus reflexis. Elytra unicoloria fusca vel fusco-testacea ; alæ fusco-testaceæ. Pedes longi, fuscii vel fusco-testacei. Abdomen fusco-castaneum, nitens, pone medium paullo dilatatum, plicis lateralibus distinctis ; segmentum ultimum dorsale ♂ transversum, latum, breve, medio impresso, sulculo obsoleto instructum, margine ipso postico medio triangulariter reflexo, utrinque supra insertionem forcipis obtuse-tuberculato ; segmentum penultimum ventrale transverso ovale, ultimum totum obtegens. Pygidium ♂ breve, quadratum, prominens, angulis posticis tuberculo minimo obsoleto instructis. Forcipis brachia ♂ depressa, elongata, basi ipso dilatata ac deplanata, hac parte dilatata dente interno obtuso terminata ; dehinc brachia recta, inermia, simplicia, deplanata, apicibus ipsis incurvis, haud decussatis. ♂. ♀ ignota.

	♂
Long. corporis . . .	8-11 mm.
„ forcipis . . .	3-6 „

Hab. JAPAN, CENTRAL; 7 ♂♂ and a fragment (*J. Harmandi*, 1900).

This species presents the same dimorphism that is common in many earwigs, that is, there are two forms, *macrolabia* and *microlabia*. It is a very distinct species, distinguished by the unspotted elytra, compressed body, square pygidium, and the form of the forceps. It is, perhaps, in intermediate form between *F. lurida* or *F. auricularia* and *F. smyrnensis*.

Forficula planicollis, Kirb.

Statura minore; colore castaneo, vel fusco-testaceo, nigro-variegato. Caput atrum, vel rufo-fusco-castaneum; antennæ testaceæ, 12-segmentatæ. Pronotum capite haud vel vix angustius, latius quam longius, margine antico recto, postico rotundato, lateribus parallelis, colore toto nigro, lateribus plerumque pallido-marginatis; prozona paullo tumida, sulculo medio vix perspicuo instructa; lateribus ipsis paullo reflexis; metazona plana. Elytra alæque ampla, lævia, unicoloria testacea. Pedes testacei, vel rufo-testacei. Abdomen fusco-castaneum, nitidum, minutissime punctulatum, tuberculis lateralibus distinctis nigro-circumdatis; apud ♂ plus minus deplanatum, depressum, usque ad secundam tertiam longitudinis dilatatum, dehinc angustatum, apud ♀ minus vel vix dilatatum: segmentum ultimum dorsale ♂ angustum, breve, utrinque supra insertionem forcipis obtuse tuberculato, apud ♀ brevissime, angustum, tuberculis obsoletis. Pygidium haud perspicuum. Forcipis brachia: ♂ inermia, dep'lanata, tantum per quartam partem longitudinis dilatata ac contigua, hac parte margine interno minute denticulata, superne leviter tumida; dehinc divergentia, tum convergentia, aream ovalem includentia, haud decussata; ♀ subcontigua rectissima, apice leviter decussata. ♂ ♀.

Variat: colore toto rufo-nigro, pedibus rufescentibus, forcipis brachiis pone partem dilatatum fortius divergentibus, tum fortius incurvis, aream rotundatam includentibus. ♂.

	♂	♀
Long. corporis . . .	7-9 mm.	--
Lat. max. abdom. . .	2.25 ,,	--
Long. forcipis . . .	2-2.75 ,,	2 mm.

Hab. "NORD DES INDES ORIENTALES, Dardjiling," 2 ♂♂, 1 ♀; "Montagnes, 1886" (*J. Harmand*, 1 ♀, 2854, 1890; Mus. Paris).

These specimens agree with Kirby's type, which is in

very bad condition, and a female. The ♂ has been hitherto unknown.

Forficula ambigua, sp. n.

F. planicollis vicina; ab ea differt: (1) colore pallidiori, haud nigro-variegato, capite fusco-rufo, pronoto rufo, lateribus pellucidis, (2) pronoti marginibus deplanatis nec reflexis, (3) abdomine cylindrico, haud vel vix dilatato, minus depresso, (4) forcipis brachiis ♂ basi ipso tantum dilatato, dehinc subrectis haud vel vix divergentibus, leviter incurvis. ♂ ♀.

	♂	♀
Long. corporis . . .	9.5 mm.	8.25-9 mm.
Lat. max. abdom. . .	2 „	—
Long. forcipis . . .	2.5-3 „	2 „

Hab. DARDJILING; 2 ♂♂, 3 ♀♀ (*J. Harmand*, 2854, 1890. 1 ♀ i. Montagnes, 1886).

One of the males of this species affords a transition from the preceding species, in having the colour of *F. planicollis* and the form of *F. ambigua*. The two forms are so closely allied that the females alone can be distinguished only by their colour. *F. ambigua* approaches nearly to *Apterygida*.

Forficula mogul, sp. n.

Statura majore, robusta. Caput nigrum, occipite rubro: antennae . . . ? Pronotum quadratum, haud latius quam longius, margine antico recto, postico rotundato, colore fusco-castaneo, lateribus deplanatis, pellucidis; prozona leviter tumida, medio carinula brevissima vix perspicua, bifurcata, metazona media carinula obsoleta, instructis. Elytra brevia, apice truncata, sublevia, rufo-fuscostacea; alae eodem colore, apice nonnihil infuscatæ. Pedes validi, rufo-testacei. Abdomen rufo-nigrum, tuberculis lateralibus distinctis, segmentis totis minutissime punctulatis; segmentum ultimum dorsale ♂ transversum, læve, haud punctulatum, obtuse tuberculatum utrinque supra insertionem forcipis, apud ♀ angustum, tuberculis obtusioribus; segmentum penultimum ventrale rotundatum, segmentum ultimum fere totum obtegens. Pygidium ♂ breve, truncatum, ♀ haud perspicuum. Forcipis brachia rufa, apice infuscata, tota punctulata, valida, robusta, deplanata; ♂, basi dilatata ac deplanata, per tertiam partem longitudinis, hac parte margine interno fortiter denticulata, dehinc attenuata, recta, apicem versus sensim incurva, ♀ subrecta, contigua, haud dilatata, apice decussata. ♂ ♀.

	♂	♀
Long. corporis . . .	16 mm.	—
„ forcipis . . .	5 „	4 mm.

Hab. DARDJILING; 1 ♂, 1 ♀ (*J. Harmand*, No. 2854, 1890).

This species resembles *F. ruficollis* from Spain, but the head is not entirely black, the pronotum is square not oblong, the wings are well developed, the elytra unspotted.

Forficula beelzebub, Burr.

I described this insect as a *Chelisothes* in the *Annales de la Soc. Entom. de Belgique*, Tome xlv, p. 51 (1900), from a single specimen; in colour and appearance it resembles *Chelisothes morio*, which led me to range it in that genus, but in the Paris collection I have been able to examine a more complete series, and so have been able to see more clearly the form of the second tarsal segment; there is no doubt that it is a true *Forficula*. The male appears to be dimorphic in the form of the forceps; the form which I described as typical corresponds to the varieties *macrolabia*, *forcipata*, etc. of our European *Forficulæ*, but there are some specimens with much shorter forceps in the Paris collection, which are, perhaps, the typical form; from my description, the following words must be suppressed, "*braccio sinistro (forcipis) quam dextro plus incurvo*"; I was misled by the condition of the single male which was the type, and the series in the Paris collection shows that both branches of the forceps are equally curved.

It is easy to recognize by its black colour, with no lighter markings.